



## Thesis Project Form

**Title (tentative):** Computational models for the treatment of refractory epilepsy with deep brain stimulation

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### Description

#### Motivation and application domain

The program aims to conduct a comprehensive analysis of EEG data obtained from patients with epilepsy and subsequently develop a sophisticated computational model for the optimization of treatment through Deep Brain Stimulation (DBS).

#### General objectives and main activities

Deepen the understanding of specific clinical and engineering topics, such as, on the clinical side, epilepsy and its treatment with deep brain stimulation, and, on the engineering side, multiscale computational models, and EEG data analysis.

#### Training Objectives (technical/analytical tools, experimental methodologies)

Data analysis, EEG experimental procedures, Neurophysiological signals processing

**Place(s) where the thesis work will be carried out:** University of Twente, NL

### Additional information

**Maximum number of students:** 1